

REMARKS

This is a full and timely response to the outstanding Advisory Action mailed on October 19, 2007 and the final Office Action mailed August 10, 2007. Through this response, claims 1 and 24 have been amended. Reconsideration and allowance of the application and pending claims 1-3 and 5-47 are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 103(a)

A. Statement of the Rejection

Claims 1-3 and 5-47 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Pierre, et al.* ("Pierre," U.S. Pat. No. 6,678,463). Applicants respectfully traverse this rejection.

B. Discussion of the Rejection

The U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquiries, also expressed in MPEP 2100-116, are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Applicants respectfully submit that a *prima facie* case of obviousness is not established using the art of record.

Independent Claim 1

Claim 1 recites (emphasis added):

1. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:

a memory for storing logic;

a buffer space in the hard disk for buffering media content instances as buffered media content instance files; and

a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide a visual indication of an amount of available free space, such that the indication is independent of the buffer space.

Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest at least the above emphasized claim features. The final Office Action (page 3) refers to Figure 7, and steps 106, 120, 140, as well as column 6, line 7 through column 7, line 64 of *Pierre*. Figure 7 of *Pierre* discloses the steps 106, 120, 140. Step 106, which resides in a decision diamond symbol in Figure 7 of *Pierre*, recites “sufficient contiguous space in storage device for remainder of program?” There is nothing in this step that discloses, teaches, or suggests that there is a visual indication, or even assuming *arguendo* there is a visual indication, that the ***indication is independent of buffer space***. Step 120 of *Pierre*, also residing in a decision diamond symbol in Figure 7, recites “sufficient contiguous space in storage device for remainder of program?” As with step 106, there is nothing in this step that discloses, teaches, or suggests that there is a visual indication, or even assuming *arguendo* there is a visual indication, that the ***indication is independent of buffer space***. Step 140 recites “notify viewer that there is insufficient space to record program.” Even assuming *arguendo* a visual indication is made, there is nothing in this step that discloses, teaches, or suggests that the ***indication is independent of buffer space***.

With regard to the column/line citations of *Pierre* referenced in the final Office Action, Applicants have reproduced relevant portions of those cited sections below (col. 7, lines 55-59 in *Pierre*, emphasis added):

FIG. 6 shows the semi-permanent storage area 94 having a storage media 98 that is almost completely full. If there is insufficient contiguous space within the semi-permanent storage area 94 to record the entire program (as shown in FIG. 5), a defragmentation process may be performed to provide sufficient contiguous space. If the semi-permanent storage area 94 does not have sufficient space available even after defragmentation is performed (FIG. 6), the viewer may be notified and asked to delete previously recorded material or cancel the request to record the current broadcast program.

Applicants respectfully submit that the above reproduced section does not disclose at least the emphasized features of claim 1. Even assuming *arguendo* that an indication with regard to sufficient space or insufficient space to record is disclosed in *Pierre*, the indication is not a “visual indication of an **amount of available free space**.” For instance, the viewer may simply be provided a “message” that there is insufficient space to record the program (e.g., see col. 8, lines 60-65 of *Pierre*). In other words, it is not inherent that any indication with regard to sufficiency of recording space necessarily implies the type or content of the indication.

The Advisory Action, though addressing a different claim limitation previously presented (e.g., numerical indication), alleges that it is common knowledge to provide a numerical indication. Extending to the broader language of a “visual indication of an **amount of available free space**,” Applicants respectfully disagree that such features would be well-known when viewed in the context of the entire claim language. For instance, the claim language also requires that the indication be **independent of buffer space**. In contrast, the screen shot on page 4 (local disk properties) of the final Office Action makes no distinction between buffer space and disc space. In other words, this is not an apples-to-apples comparison (the reasoning of the final Office Action is not predicated on sound

technical and scientific reasoning), and hence Applicants respectfully traverse the taking of Official Notice/well-known, and request withdrawal of the same.

Further, the Advisory Action alleges that “the gap between the prior art and respondent’s system is simply not so great as to render the system unobvious to one of reasonably[sic] skilled in the art.” However, Applicants respectfully disagree. For instance, one indicator that a *prima facie* case of obviousness has not been met is the absence of a proper motivation to combine what is alleged as well-known in the art with *Pierre*. As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant’s disclosure.

In the present case, the screen shot from the Windows Operating System Properties discloses nothing about buffer space. Further, the system in *Pierre*, though absent features corresponding to the explicit claim language, would appear to perform without any evident need for improvement, and certainly without the need for providing ***a visual indication of an amount of available free space, such that the indication is independent of the buffer space.*** Indeed, anything more than simply providing a

message that there is insufficient recording space available to record a program would likely involve added complexity and provide no further advancement toward *Pierre*'s stated goal to "allow a viewer to record an entire broadcast program after a portion of it has already been viewed." (col. 2, lines 17-19, *Pierre*).

The final Office Action (page 4) alleges that "[i]t would have been obvious to a person having ordinary skill in the art at the time of the invention was made to use the above feature of Windows...in *Pierre*, as this would indicate the amount of free remaining space on the hard disk, thereby helping a user manage more efficiently his/her program recording." Applicants respectfully submit that this explanation, if intended to satisfy the motivation requirement under MPEP 2143, is insufficient to provide a basis for a *prima facie* case of obviousness. For instance, is it being suggested in the final Office Action that the "amount of free space" somehow advances the viewer experience? For instance, is it expected that the viewer will use the visual indication to somehow calculate how much space a desired show is to consume if recorded, and based on that calculation, manage what he or she records? Wouldn't the end result of this arduous endeavor, especially in the face of variable bit rate recording, provide an end result that duplicates the embodiment already described – namely, deleting programs to make room for recording? What would motivate one to expend extra effort in their viewing experience to achieve a result already handled without such excessive user intervention in the disclosed embodiments of *Pierre*? Applicants respectfully submit that the alleged motivation is unreasonable, and hence respectfully requests that the rejection be withdrawn.

Additionally, Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest ***logic to track the size of permanent media content instance files and the buffered media content instance files***. Although there are excerpts in *Pierre* that disclose the user setting the number of minutes of viewing data to be recorded or a default

preset value may be implemented (e.g., see col. 6, lines 4-22), Applicants respectfully submit that nothing in *Pierre* discloses, teaches, or suggests the tracking of permanent or buffered media content instance file sizes. To the extent the rejection of claim 1 based on these features relies on *Pierre*, Applicants respectfully request that the rejection be withdrawn.

For at least the reasons presented above, Applicants submit that claim 1 is allowable over the art of record, and hence respectfully request withdrawal of the rejection.

Because independent claim 1 is allowable over *Pierre*, dependent claims 2-3, 5-22, and 47 are allowable as a matter of law for at least the reason that the dependent claims 2-3, 5-22, and 47 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Independent Claim 23

Claim 23 recites (emphasis added):

23. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:
a memory for storing logic;

a buffer space in the hard disk for continuously buffering media content instances as buffered media content instance files; and

a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files, wherein the processor is further configured with the logic to provide a user interface, responsive to a user input, wherein the user interface provides the indication of available free space for permanently recording media content instances, wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files, wherein the permanently recorded media content instance files can be deleted from the storage device, wherein the user input is implemented with a remote control device, wherein the permanently recorded media content is from the buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the buffer space, the available free space, and permanently recorded space are located on the hard disk, wherein the buffer space and permanently recorded space are allocated from the free

space on the hard disk, wherein the buffer space and permanently recorded space have physical locations on the hard disk, wherein the buffer space and the available free space is measured in units of hard disk space, wherein the processor is further configured with the logic to buffer analog broadcast media content instances, received at a communications interface, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance, wherein the processor is further configured with the logic to buffer digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances, wherein the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space, wherein the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files, wherein the processor is configured with the logic to increase the available free space by the amount of the space recovered from a deleted permanent media content instance files, wherein the indication of the free space available is configured in time of space available for the permanent media content instance files, **wherein the processor is further configured with the logic to provide the user interface that provides a numerical indication of an amount of available free space, such that the indication is unaffected by writes to and deletions from the buffer space.**

Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest at least the above emphasized claim features. The final Office Action (page 9, which refers to the rejections made in claims 1-22, and hence claim 1 arguments presented in the final Office Action on pages 3-4 are presented below) refers to Figure 7, and steps 106, 120, 140, as well as column 6, line 7 through column 7, line 64 of *Pierre*. Figure 7 of *Pierre* discloses the steps 106, 120, 140. Step 106, which resides in a decision diamond symbol in Figure 7 of *Pierre*, recites “sufficient contiguous space in storage device for remainder of program?” There is nothing in this step that discloses, teaches, or suggests that there is a numerical

indication, or even assuming *arguendo* there is a numerical indication, that the ***indication is unaffected by writes to and deletions from the buffer space***. Step 120 of *Pierre*, also residing in a decision diamond symbol in Figure 7, recites “sufficient contiguous space in storage device for remainder of program?” As with step 106, there is nothing in this step that discloses, teaches, or suggests that there is a numerical indication, or even assuming *arguendo* there is a numerical indication, that the ***indication is unaffected by writes to and deletions from the buffer space***. Step 140 recites “notify viewer that there is insufficient space to record program.” Even assuming *arguendo* a numerical indication is made, there is nothing in this step that discloses, teaches, or suggests that the ***indication is unaffected by writes to and deletions from the buffer space***.

With regard to the column/line citations of *Pierre* referenced in the final Office Action, Applicants have reproduced relevant portions of those cited sections below (col. 7, lines 55-59 in *Pierre*, emphasis added):

FIG. 6 shows the semi-permanent storage area 94 having a storage media 98 that is almost completely full. If there is insufficient contiguous space within the semi-permanent storage area 94 to record the entire program (as shown in FIG. 5), a defragmentation process may be performed to provide sufficient contiguous space. If the semi-permanent storage area 94 does not have sufficient space available even after defragmentation is performed (FIG. 6), the viewer may be notified and asked to delete previously recorded material or cancel the request to record the current broadcast program.

Applicants respectfully submit that the above reproduced section does not disclose at least the emphasized features of claim 23. Even assuming *arguendo* that an indication with regard to sufficient space or insufficient space to record is disclosed in *Pierre*, the indication is not a “numerical indication of an ***amount of available free space***.” For instance, the viewer may simply be provided a “message” that there is insufficient space to record the program (e.g., see col. 8, lines 60-65 of *Pierre*). In other words, it is not inherent

that any indication with regard to sufficiency of recording space necessarily implies the type or content of the indication.

The Advisory Action alleges that it is common knowledge to provide a numerical indication. Applicants respectfully disagree that such features would be well-known when viewed in the context of the entire claim language. For instance, the claim language also requires that the indication be ***unaffected by writes to and deletions from the buffer space.*** In contrast, the screen shot on page 4 (local disk properties) of the final Office Action makes no distinction between buffer space and disc space. In other words, this is not an apples-to-apples comparison (the reasoning of the final Office Action is not predicated on sound technical and scientific reasoning), and hence Applicants respectfully traverse the taking of Official Notice/well-known, and request withdrawal of the same.

Further, the Advisory Action alleges that “the gap between the prior art and respondent’s system is simply not so great as to render the system unobvious to one of reasonably[sic] skilled in the art.” However, Applicants respectfully disagree. For instance, one indicator that a *prima facie* case of obviousness has not been met is the absence of a proper motivation to combine what is alleged as well-known in the art with *Pierre*. As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. *See In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

In the present case, the screen shot from the Windows Operating System Properties discloses nothing about buffer space. Further, the system in *Pierre*, though absent features corresponding to the explicit claim language, would appear to perform without any evident need for improvement, and certainly without the need for providing ***a numerical indication of an amount of available free space, such that the indication is unaffected by writes to and deletions from the buffer space.*** Indeed, anything more than simply providing a message that there is insufficient recording space available to record a program would likely involve added complexity and provide no further advancement toward *Pierre*'s stated goal to "allow a viewer to record an entire broadcast program after a portion of it has already been viewed." (col. 2, lines 17-19, *Pierre*).

The final Office Action alleges (page 4) that "[I]t would have been obvious to a person having ordinary skill in the art at the time of the invention was made to use the above feature of Windows...in *Pierre*, as this would indicate the amount of free remaining space on the hard disk, thereby helping a user manage more efficiently his/her program recording." Applicants respectfully submit that this explanation, if intended to satisfy the motivation requirement under MPEP 2143, is insufficient to provide a basis for a *prima facie* case of obviousness. For instance, is it being suggested in the final Office Action that the "amount of free space" somehow advances the viewer experience? For instance, is it expected that the viewer will use the visual indication to somehow calculate how much space a desired show is to consume if recorded, and based on that calculation, manage what he or she records? Wouldn't the end result of this arduous endeavor, especially in the face of variable bit rate recording,

provide an end result that duplicates the embodiment already described – namely, deleting programs to make room for recording? What would motivate one to expend extra effort in their viewing experience to achieve a result already handled without such excessive user intervention in the disclosed embodiments of *Pierre*? Applicants respectfully submit that the alleged motivation is unreasonable, and hence respectfully requests that the rejection be withdrawn.

Additionally, Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest ***logic to track the size of permanent media content instance files and the buffered media content instance files***. Although there are excerpts in *Pierre* that disclose the user setting the number of minutes of viewing data to be recorded or a default preset value may be implemented (e.g., see col. 6, lines 4-22), Applicants respectfully submit that nothing in *Pierre* discloses, teaches, or suggests the tracking of permanent or buffered media content instance file sizes. To the extent the rejection of claim 23 based on these features relies on *Pierre*, Applicants respectfully request that the rejection be withdrawn.

For at least the reasons presented above, Applicants submit that claim 23 is allowable over the art of record, and hence respectfully request withdrawal of the rejection.

Independent Claim 24

Claim 24 recites (emphasis added):

24. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:

buffering media content instances into buffer space as buffered media content instance files;
tracking the size of permanent media content instance files and buffered media content instance files; and
providing a visual indication of an amount of available free space, such that the indication is independent of the buffer space.

Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest at least the above emphasized claim features. The final Office Action (page 9) refers to Figure 7, and steps 106, 120, 140, as well as column 6, line 7 through column 7, line 64 of *Pierre*. Figure 7 of *Pierre* discloses the steps 106, 120, 140. Step 106, which resides in a decision diamond symbol in Figure 7 of *Pierre*, recites “sufficient contiguous space in storage device for remainder of program?” There is nothing in this step that discloses, teaches, or suggests that there is a visual indication, or even assuming *arguendo* there is a visual indication, that the ***indication is independent of buffer space***. Step 120 of *Pierre*, also residing in a decision diamond symbol in Figure 7, recites “sufficient contiguous space in storage device for remainder of program?” As with step 106, there is nothing in this step that discloses, teaches, or suggests that there is a visual indication, or even assuming *arguendo* there is a visual indication, that the ***indication is independent of buffer space***. Step 140 recites “notify viewer that there is insufficient space to record program.” Even assuming *arguendo* a visual indication is made, there is nothing in this step that discloses, teaches, or suggests that the ***indication is independent of buffer space***.

With regard to the column/line citations of *Pierre* referenced in the final Office Action, Applicants have reproduced relevant portions of those cited sections below (col. 7, lines 55-59 in *Pierre*, emphasis added):

FIG. 6 shows the semi-permanent storage area 94 having a storage media 98 that is almost completely full. If there is insufficient contiguous space within the semi-permanent storage area 94 to record the entire program (as shown in FIG. 5), a defragmentation process may be performed to provide sufficient contiguous space. If the semi-permanent storage area 94 does not have sufficient space available even after defragmentation is performed (FIG. 6), the viewer may be notified and asked to delete previously recorded material or cancel the request to record the current broadcast program.

Applicants respectfully submit that the above reproduced section does not disclose at least the emphasized features of claim 24. Even assuming *arguendo* that an indication with regard to sufficient space or insufficient space to record is disclosed in *Pierre*, the indication is not a “visual indication of an **amount of available free space**.” For instance, the viewer may simply be provided a “message” that there is insufficient space to record the program (e.g., see col. 8, lines 60-65 of *Pierre*). In other words, it is not inherent that any indication with regard to sufficiency of recording space necessarily implies the type or content of the indication.

The Advisory Action, though addressing a different claim limitation previously presented (e.g., numerical indication), alleges that it is common knowledge to provide a numerical indication. Extending to the broader language of a “visual indication of an **amount of available free space**,” Applicants respectfully disagree that such features would be well-known when viewed in the context of the entire claim language. For instance, the claim language also requires that the indication be **independent of buffer space**. In contrast, the screen shot on page 4 (local disk properties) of the final Office Action makes no distinction between buffer space and disc space. In other words, this is not an apples-to-apples comparison (the reasoning of the final Office Action is not predicated on sound technical and scientific reasoning), and hence Applicants respectfully traverse the taking of Official Notice/well-known, and request withdrawal of the same.

Further, the Advisory Action alleges that “the gap between the prior art and respondent’s system is simply not so great as to render the system unobvious to one of reasonably[sic] skilled in the art.” However, Applicants respectfully disagree. For instance, one indicator that a *prima facie* case of obviousness has not been met is the absence of a proper motivation to combine what is alleged as well-known in the art with *Pierre*. As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a *prima facie*

case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

In the present case, the screen shot from the Windows Operating System Properties discloses nothing about buffer space. Further, the system in *Pierre*, though absent features corresponding to the explicit claim language, would appear to perform without any evident need for improvement, and certainly without the need for providing **a visual indication of an amount of available free space, such that the indication is independent of the buffer space**. Indeed, anything more than simply providing a message that there is insufficient recording space available to record a program would likely involve added complexity and provide no further advancement toward *Pierre*'s stated goal to "allow a viewer to record an entire broadcast program after a portion of it has already been viewed." (col. 2, lines 17-19, *Pierre*).

The final Office Action (page 4) alleges that "[i]t would have been obvious to a person having ordinary skill in the art at the time of the invention was made to use the above feature of Windows...in *Pierre*, as this would indicate the amount of free remaining space on the hard disk, thereby helping a user manage more efficiently his/her program recording." Applicants respectfully submit that this explanation, if

intended to satisfy the motivation requirement under MPEP 2143, is insufficient to provide a basis for a *prima facie* case of obviousness. For instance, is it being suggested in the final Office Action that the “amount of free space” somehow advances the viewer experience? For instance, is it expected that the viewer will use the visual indication to somehow calculate how much space a desired show is to consume if recorded, and based on that calculation, manage what he or she records? Wouldn’t the end result of this arduous endeavor, especially in the face of variable bit rate recording, provide an end result that duplicates the embodiment already described – namely, deleting programs to make room for recording? What would motivate one to expend extra effort in their viewing experience to achieve a result already handled without such excessive user intervention in the disclosed embodiments of *Pierre*? Applicants respectfully submit that the alleged motivation is unreasonable, and hence respectfully requests that the rejection be withdrawn.

Additionally, Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest “**tracking the size of permanent media content instance files and buffered media content instance files.**” Although there are excerpts in *Pierre* that disclose the user setting the number of minutes of viewing data to be recorded or a default preset value may be implemented (e.g., see col. 6, lines 4-22), Applicants respectfully submit that nothing in *Pierre* discloses, teaches, or suggests the tracking of permanent media content instance file sizes. To the extent the rejection of claim 24 based on these features relies on *Pierre*, Applicants respectfully request that the rejection be withdrawn.

For at least the reasons presented above, Applicants submit that claim 24 is allowable over the art of record, and hence respectfully request withdrawal of the rejection.

Because independent claim 24 is allowable over *Pierre*, dependent claims 25 – 45 are allowable as a matter of law.

Independent Claim 46

Claim 46 recites (emphasis added):

46. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:

continuously buffering media content instances as buffered media content instance files;

tracking the size of permanent media content instance files and the buffered media content instance files;

providing a user interface, responsive to a user input, wherein the user interface provides a numerical indication of an amount of available free space for permanently recording media content instances, wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files, wherein the permanently recorded media content instance files can be deleted from the storage device, wherein the user input is implemented with a remote control device, wherein the permanently recorded media content is from the buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, ***wherein the indication is unaffected by writes to and deletions from the buffer space,*** wherein the buffer space, the available free space, and permanently recorded space are located on the hard disk, wherein the buffer space and permanently recorded space are allocated from the free space on the hard disk, wherein the buffer space and permanently recorded space have physical locations on the hard disk, wherein the buffer space and the available free space is measured in units of hard disk space;

buffering analog broadcast media content instances, received at a communications interface, as digitally compressed media content instances;

buffering an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance;

buffering digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances;

buffering digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances;

buffering digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances;

buffering digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances; determining the available free space after subtracting buffer space capacity from total disk space; reducing the available free space by the amount of the space used for the permanent media content instance files; and increasing the available free space by the amount of the space recovered from a deleted permanent media content instance files, wherein the indication of the free space available is configured in time of space available for the permanent media content instance files.

Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest at least the above emphasized claim features. The final Office Action (page 14, which refers to the rejections made in claims 24-25, and hence claim 24 arguments presented in the final Office Action on pages 9-10 are presented below) refers to Figure 7, and steps 106, 120, 140, as well as column 6, line 7 through column 7, line 64 of *Pierre*. Figure 7 of *Pierre* discloses the steps 106, 120, 140. Step 106, which resides in a decision diamond symbol in Figure 7 of *Pierre*, recites “sufficient contiguous space in storage device for remainder of program?” There is nothing in this step that discloses, teaches, or suggests that there is a numerical indication, or even assuming *arguendo* there is a numerical indication, that the ***indication is unaffected by writes to and deletions from the buffer space***. Step 120 of *Pierre*, also residing in a decision diamond symbol in Figure 7, recites “sufficient contiguous space in storage device for remainder of program?” As with step 106, there is nothing in this step that discloses, teaches, or suggests that there is a numerical indication, or even assuming *arguendo* there is a numerical indication, that the ***indication is unaffected by writes to and deletions from the buffer space***. Step 140 recites “notify viewer that there is insufficient space to record program.” Even assuming *arguendo* a numerical indication is made, there is nothing in this step that discloses, teaches, or suggests that the ***indication is unaffected by writes to and deletions from the buffer space***.

With regard to the column/line citations of *Pierre* referenced in the final Office Action, Applicants have reproduced relevant portions of those cited sections below (col. 7, lines 55-59 in *Pierre*, emphasis added):

FIG. 6 shows the semi-permanent storage area 94 having a storage media 98 that is almost completely full. If there is insufficient contiguous space within the semi-permanent storage area 94 to record the entire program (as shown in FIG. 5), a defragmentation process may be performed to provide sufficient contiguous space. If the semi-permanent storage area 94 does not have sufficient space available even after defragmentation is performed (FIG. 6), the viewer may be notified and asked to delete previously recorded material or cancel the request to record the current broadcast program.

Applicants respectfully submit that the above reproduced section does not disclose at least the emphasized features of claim 46. Even assuming *arguendo* that an indication with regard to sufficient space or insufficient space to record is disclosed in *Pierre*, the indication is not a “numerical indication of an **amount of available free space**.” For instance, the viewer may simply be provided a “message” that there is insufficient space to record the program (e.g., see col. 8, lines 60-65 of *Pierre*). In other words, it is not inherent that any indication with regard to sufficiency of recording space necessarily implies the type or content of the indication.

The Advisory Action alleges that it is common knowledge to provide a numerical indication. Applicants respectfully disagree that such features would be well-known when viewed in the context of the entire claim language. For instance, the claim language also requires that the indication be **unaffected by writes to and deletions from the buffer space**. In contrast, the screen shot on page 4 (local disk properties) of the final Office Action makes no distinction between buffer space and disc space. In other words, this is not an apples-to-apples comparison (the reasoning of the final Office Action is not predicated on sound technical and scientific reasoning), and hence Applicants respectfully traverse the taking of Official Notice/well-known, and request withdrawal of the same.

Further, the Advisory Action alleges that “the gap between the prior art and respondent’s system is simply not so great as to render the system unobvious to one of reasonably[sic] skilled in the art.” However, Applicants respectfully disagree. For instance, one indicator that a *prima facie* case of obviousness has not been met is the absence of a proper motivation to combine what is alleged as well-known in the art with *Pierre*. As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant’s disclosure.

In the present case, the screen shot from the Windows Operating System Properties discloses nothing about buffer space. Further, the system in *Pierre*, though absent features corresponding to the explicit claim language, would appear to perform without any evident need for improvement, and certainly without the need for providing a ***numerical indication of an amount of available free space...wherein the indication is unaffected by writes to and deletions from the buffer space.*** Indeed, anything more than simply providing a message that there is insufficient recording space available to record a program would likely involve added complexity and provide no further

advancement toward *Pierre*'s stated goal to "allow a viewer to record an entire broadcast program after a portion of it has already been viewed." (col. 2, lines 17-19, *Pierre*).

The final Office Action alleges (page 4) that "[I]t would have been obvious to a person having ordinary skill in the art at the time of the invention was made to use the above feature of Windows...in *Pierre*, as this would indicate the amount of free remaining space on the hard disk, thereby helping a user manage more efficiently his/her program recording." Applicants respectfully submit that this explanation, if intended to satisfy the motivation requirement under MPEP 2143, is insufficient to provide a basis for a *prima facie* case of obviousness. For instance, is it being suggested in the final Office Action that the "amount of free space" somehow advances the viewer experience? For instance, is it expected that the viewer will use the visual indication to somehow calculate how much space a desired show is to consume if recorded, and based on that calculation, manage what he or she records? Wouldn't the end result of this arduous endeavor, especially in the face of variable bit rate recording, provide an end result that duplicates the embodiment already described – namely, deleting programs to make room for recording? What would motivate one to expend extra effort in their viewing experience to achieve a result already handled without such excessive user intervention in the disclosed embodiments of *Pierre*? Applicants respectfully submit that the alleged motivation is unreasonable, and hence respectfully requests that the rejection be withdrawn.

Additionally, Applicants respectfully submit that *Pierre* fails to disclose, teach, or suggest ***tracking the size of permanent media content instance files and the buffered media content instance files***. Although there are excerpts in *Pierre* that disclose the user setting the number of minutes of viewing data to be recorded or a default preset value may be implemented (e.g., see col. 6, lines 4-22), Applicants respectfully submit that nothing in *Pierre* discloses, teaches, or suggests the tracking of permanent or

buffered media content instance file sizes. To the extent the rejection of claim 46 based on these features relies on *Pierre*, Applicants respectfully request that the rejection be withdrawn.

For at least the reasons presented above, Applicants submit that claim 46 is allowable over the art of record, and hence respectfully request withdrawal of the rejection.

CONCLUSION

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, and similarly interpreted statements, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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